IFW

03500.018003

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| i n re A | pplication of: |) | |
|-----------------|--------------------------|---|---------------------|
| | • • | : | Examiner: P. Khatri |
| HIDE | KAZU SHIMOMURA |) | |
| | | : | Art Unit: 2872 |
| Applic | ation No.: 10/810,581 |) | |
| ~ | | : | |
| Filed: | March 29, 2004 |) | |
| | ODTICAL CCANDING DEVICE | : | |
| For: | OPTICAL SCANNING DEVICE |) | |
| | AND IMAGE FORMING | : | |
| | APPARATUS USING THE SAME |) | November 7, 2006 |

Commissioner for Patents Post Office Box 1450 Alexandria, VA 22313-1450

REQUEST FOR REFUND

Sir:

In connection with the above-identified application, Applicants request a refund of \$200.00 for independent claims in excess of three, which was erroneously charged to our Deposit Account 06-1205. It is requested that the refund be applied as a credit to that Deposit Account. The reason for the refund is explained below.

On November 9, 2005, Applicant filed a Transmittal for Amendment and Amendment. There were no claims added in this Amendment and only two independent claims remain. No additional claims fees were due at that time. A copy of the Transmittal and amendment are attached.

The Patent Office's Monthly Statement of Deposit Account, dated

November 2005 (copy attached), indicates that Deposit Account No. 06-1205 was charged

the fee of \$200.00 for an excess claim fee. Applicant respectfully submits that a refund of \$200.00 is due.

Accordingly, Applicant hereby requests a refund and authorizes the Commissioner to credit Deposit Account No. 06-1205 in the amount of \$200.00, to resolve this matter.

Applicant's undersigned attorney may be reached in our New York office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

Safrie

Michael K. O'Neill

Attorney for Applicant Registration No. 32,622

FITZPATRICK, CELLA, HARPER & SCINTO 30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 547990v1

In re Application of:

HIDEKAZU SHIMOMURA

Application No.: 10/810,581

. Filed: March 29, 2004

For: OPTICAL SCANNING DEVICE AND IMAGE

FORMING APPARATUS USING THE SAME

THE COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Amendment in the above-identified application.

No additional fee is required.

The fee has been calculated as shown below

| CLAIMS AS AMENDED | | | | | | | | |
|-------------------|--------------------------------------|-------|--|-------------------------|------------------|-------------------|--|--|
| | (2) CLAIMS REMAINING AFTER AMENDMENT | | (4) HIGHEST NO. PREVIOUSLY PAID FOR | (5) PRESENT EXTRA | RATE | ADDITIONAL FEE | | |
| TOTAL CLAIMS | * 12 | MINUS | ** 50 | = 0 | x \$25 \$50 | - 0 - | | |
| INDEP. CLAIMS | * 2 | MINUS | *** | = 0 | x \$100 \$200 | - 0 - | | |
| Fee for Mu | Prev. Paid | | | | | | | |
| | - 0 - | | | | | | | |

If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5. If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space. If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

Docket No. 03500.018003

Examiner: P. Khatri

Group Art Unit: 2872

Date: November 9, 2005

eg. No. 32,622 for Applicant)

November 9, 2005 Date of Signature

| | Verified Statement claiming small entity status is enclosed, if not filed previously. |
|-----------------|---|
| | A check in the amount of \$ is enclosed. |
| | Charge \$ to Deposit Account No. 06-1205. A duplicate copy of this sheet is enclosed. |
| X | Any prior general authorization to charge an issue fee under 37 C.F.R. 1.18 to Deposit Account No. 06-1205 is hereby revoked. The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 1.16 and 1.17 which may be required during the entire pendency of this application, or to credit any overpayment, to Deposit Account No. 06-1205. A duplicate copy of this paper is enclosed. |
| | A check in the amount of \$ to cover the fee for a month extension is enclosed. |
| X | A check in the amount of \$_180.00\ to cover the Information Disclosure Statement fee is enclosed. |
| X | Applicant's undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should continue to be directed to our address given below. |
| | Respectfully submitted, |
| | Attorney for Applicant Michael K. O North Registration 10.: 32,622 |
| 30 Roo New Y | ATRICK, CELLA, HARPER & SCINTO ckefeller Plaza York, New York 10112-3800 nile: (212) 218-2200 |
| Form #1 | 20 |

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03500.018003

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| re A | application of: |) | |
|--------|------------------------|---|----------------------|
| | | : | Examiner: P. Khatri |
| HIDE | KAZU SHIMOMURA |) | |
| | | : | Group Art Unit: 2872 |
| Applic | cation No.: 10/810,581 |) | |
| | | : | |
| Filed: | March 29, 2004 |) | |
| | | : | |
| For: | OPTICAL SCANNING |) | |
| | DEVICE AND IMAGE | : | |
| | FORMING APPARATUS |) | |
| | USING THE SAME | : | November 9, 2005 |
| _ | | | |
| Comm | nissioner for Patents | | |

P.O. Box 1450 Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Office Action dated August 9, 2005, please amend the above-identified application, as follows:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

November 9, 2005 (Date of Deposit)

Date of Deposit)

O'Ne'l reg. No. 32,622

for Applicant)

November 9, 2005

Date of Signature



IN THE CLAIMS:

Please cancel Claims 2 to 4 and 10 to 18 without prejudice or disclaimer of subject matter. Please amend the remaining claims as follows:

1. (Amended) An optical scanning device, comprising:

light source means for emitting at least one light flux having a wavelength equal to or smaller than 500 nm;

deflection means for deflecting at least one of the light fluxes emitted from the light source means; and

a scanning optical system for imaging the light flux deflected by the deflection means onto a surface to be scanned,

wherein the scanning optical system comprises at least two lenses including a glass lens and a plastic lens, each of which has an opposite sign of power, and chromatic aberration of magnification in a main scanning direction in the optical scanning device is corrected to be equal to or smaller than 40 µm in the case where a difference of wavelengths in the light flux emitted from the light source means is set to 5 nm consists of a glass lens, a first plastic lens, and a second plastic lens, which are disposed in this order from the deflection means, wherein the glass lens has negative power in the main scanning direction, and the second plastic lens has negative power in the main scanning direction, and the

wherein at least one surface of each of the first plastic lens and the second plastic lens in the main scanning direction is aspherical, and



wherein the scanning optical system satisfies a relational expression,

$|\Phi G/\nu G + \Phi P/\nu P| < 0.02 \times \Phi$

where

 ΦG : power of the glass lens in the main scanning direction on an optical axis of the scanning optical system,

vG: an Abbe number of the glass lens,

 Φ P: synthetic power of the first plastic lens and the second plastic lens in the main scanning direction on the optical axis of the scanning optical system,

 ν P: an Abbe number of the first plastic lens and the second plastic lens, and Φ : synthetic power of all systems of the scanning optical system in the main scanning direction on the optical axis of the scanning optical system.

- 2. to 4. (Cancelled)
- 5. (Original) An optical scanning device according to claim 1, wherein the light source means includes a multi-beam light source that emits at least two light fluxes.
 - 6. (Currently Amended) An image forming apparatus, comprising: the optical scanning device according to any one of claims 1 to 5 claim 1; a photosensitive member located on the surface to be scanned;



a developing unit that develops as a toner image an electrostatic latent image formed on the photosensitive member which is scanned with the light flux emitted from the optical scanning device;

a transferring unit that transfers the developed toner image onto a material to be transferred; and

a fixing device that fixes the transferred toner image onto the material to be transferred.

7. (Original) An image forming apparatus, comprising:

the optical scanning device according to claim 6; and
a printer controller that converts code data inputted from an external device
into an image signal and outputs the image signal to the optical scanning device.

8. (Currently Amended) A color image forming apparatus, comprising:
a plurality of the optical scanning devices according to any one of claims 1
to 5 claim 1; and

a plurality of image bearing members arranged at positions on the surface to be scanned by the plurality of optical scanning devices and form images of different colors.

9. (Original) A color image forming apparatus, comprising: the optical scanning devices according to claim 8; and



a printer controller that converts code data inputted from an external device into an image signal and outputs the image signal to the optical scanning devices.

10. to 18. (Cancelled)

Please add Claims 19 to 25, as follows:

19. (New) An optical scanning device, comprising:

light source means for emitting at least one light flux;

deflection means for deflecting at least one of the light fluxes emitted from the light source means; and

a scanning optical system for imaging the light flux deflected by the deflection means onto a surface to be scanned,

wherein the scanning optical system consists of a glass lens, a first plastic lens, and a second plastic lens, which are disposed in this order from the deflection means, wherein the glass lens has negative power in the main scanning direction, the first plastic lens has positive power in the main scanning direction, and the second plastic lens has negative power in the main scanning direction,

wherein at least one surface of each of the first plastic lens and the second plastic lens in the main scanning direction is aspherical, and

wherein the scanning optical system satisfies a relational expression,

$$|\Phi G/\nu G + \Phi P/\nu P| < 0.02 \times \Phi$$

where



 ΦG : power of the glass lens in the main scanning direction on an optical axis of the scanning optical system,

vG: an Abbe number of the glass lens,

 Φ P: synthetic power of the first plastic lens and the second plastic lens in the main scanning direction on the optical axis of the scanning optical system,

vP: an Abbe number of the first plastic lens and the second plastic lens, and

 Φ : synthetic power of all systems of the scanning optical system in the main scanning direction on the optical axis of the scanning optical system.

20. (New) An optical scanning device according to claim 1, wherein the light source means includes a multi-beam light source that emits at least two light fluxes.

21. (New) An image forming apparatus, comprising:

the optical scanning device according to claim 19;

a photosensitive member located on the surface to be scanned;

a developing unit that develops as a toner image an electrostatic latent image formed on the photosensitive member which is scanned with the light flux emitted from the optical scanning device;

a transferring unit that transfers the developed toner image onto a material to be transferred; and



a fixing device that fixes the transferred toner image onto the material to be transferred.

22. (New) An image forming apparatus, comprising:

the optical scanning device according to claim 21; and
a printer controller that converts code data inputted from an external device
into an image signal and outputs the image signal to the optical scanning device.

23. (New) A color image forming apparatus, comprising:

a plurality of the optical scanning devices according to claim 19; and
a plurality of image bearing members arranged at positions on the surface to be
scanned by the plurality of optical scanning devices and form images of different colors.

24. (New) A color image forming apparatus, comprising:

the optical scanning devices according to claim 23; and
a printer controller that converts code data inputted from an external device
into an image signal and outputs the image signal to the optical scanning devices.

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REMARKS

This application has been carefully reviewed in light of the Office Action dated August 9, 2005. Claims 1, 5 to 9 and 19 to 24 are in the application, of which Claims 1 and 19 are independent. Reconsideration and further examination are respectfully requested.

Turning first to a procedural matter, Applicant thanks the Examiner for his acknowledgment of receipt of the certified copy of the priority document. However, in acknowledging receipt, it is believed that the Examiner "checked the wrong box", since the subject application is not a national stage application of a PCT filing. It is therefore respectfully requested for the Examiner to re-acknowledge his receipt of the certified copy of the priority document.

Turning to the merits of the Office Action, all claims were rejected under 35 U.S.C. § 103(a), primarily over U.S. Patent 6,317,246 (Hayashi) in view of U.S. Patent 6,496,293 (Kawamura) and further in view of U.S. Patent 5,247,385 (Takanashi). In addition, in the rejection of several of the dependent claims, the Office Action relied on one or more of the following: U.S. Patent 6,259,547 (Kamikubo); U.S. Patent 5,724,172 (Ota); and U.S. Patent Application Publication 2003/0128412 (Iizuka).

In response, Claim 1 has been amended primarily to include the features of dependent Claims 2 through 4. In making these changes, certain text from the original language of Claim 1 has been eliminated, and in this sense the amended claims are broader than those originally presented. In addition, the amendment includes text that was



inadvertently omitted from the original language of dependent Claim 2, i.e., the second plastic lense is now correctly described as a lens "having negative power in the main scanning direction". Support for this description can be found throughout the specification, such as the description of θ lens 8 at page 23, lines 4 through 7 of the specification.

In view of the nature of the amendments made to the claims, this should be viewed as a traversal of the rejection, as detailed more fully below.

The invention of the rejected claims concerns an optical scanning device, and an image forming apparatus utilizing such a scanning device, in which a light flux having a wavelength equal to or smaller than 500 nm is scanned by a scanning optical system onto a surface to be scanned. According to one aspect of the invention, the scanning optical system consists of a glass lens, a first plastic lens, and a second plastic lens, which are disposed in this order from deflecting means, wherein the glass lens has a negative power in the main scanning direction, the first plastic lens has a positive power in the main scanning direction, and the second plastic lens has a negative power in the main scanning direction.

According to a second aspect of the invention, at least one surface of each of the first and second plastic lenses in the main scanning direction is aspherical, and the overall scanning optical system satisfies a relational expression that is detailed in independent Claim 1, as amended.

In entering the rejection of the claims, the Office Action conceded that the primary reference to Hayashi does not disclose a light flux having a wavelength equal to or smaller than 500 nm. However, the Office Action took the position that it would have



been obvious to incorporate the teachings of Kawamura, which describes a wavelength range of 350 nm $\leq \lambda \leq 600$ nm. Applicant respectfully traverses this assertion.

In particular, Hayashi discloses a light source within the infrared range of 780 nm. Hayashi selects his wavelength for a specific reason, and that reason is to minimize the maximum difference of wavelength $\Delta\lambda$ among the plurality of light sources, so as to reduce the chromatic aberration of magnification due to these wavelength differences.

Hayashi therefore selects his wavelength for a reason, such that it is unreasonable to modify it according to Kawamura's wavelength which differs significantly from the 780 nm wavelength of Hayashi.

Moreover, Applicant believes that those of ordinary skill in the art would recognize that such a modification is irrational. If the invention of Hayashi were modified so that it used a wavelength range of 350 nm $\leq \lambda \leq 600$ nm (as disclosed by Kawamura), the chromatic aberrations that Hayashi seeks to minimize actually become quite large and, as a consequence, become a serious problem. This is because the wavelengths in the range of Kawamura (350 nm $\leq \lambda \leq 600$ nm) are much smaller than that of the infrared range of Hayashi (780 nm).

For both of these reasons, it is respectfully asserted that those of ordinary skill in the art would not have any motivation to modify the teachings of Hayashi so as to incorporate the wavelength of Kawamura.

It is further noted that the wavelength disclosed in the tertiary reference to Takanashi is also in the infrared range of 780 nm. Like Hayashi, Takanashi also addresses



chromatic aberrations of magnification. As a consequence, therefore, it also would be unreasonable to incorporate the wavelengths disclosed by Kawamura into the device disclosed by Takanashi, for the same reasons that it is unreasonable to modify the device of Hayashi.

Applicant further asserts that even if such a combination were made (which it is not reasonable to do, as described above), his invention would not be the result. It is Applicant's understanding that all of the lenses in Takanashi's first embodiment are made of glass. Applicant therefore believes that Takanashi does not describe a three-lens optical scanning system as claimed herein, in which there is a glass lens having negative power in the main scanning direction, a first plastic lens having positive power in the main scanning direction.

The reasons for Applicant's belief that all of the lenses in Takanashi's first embodiment are glass are as follows. In his study of the optical qualities described by Takanashi for the lenses of his first embodiment, he has found that they are quite similar to the glass properties for certain glasses manufactured by Ohara, Inc. A copy of the Ohara Glass Catalog is attached, and it also can be viewed on the Internet at http://www.oharacorp.com/PDF/Ohara_Glass_Catalog.pdf. The Ohara Glass Catalog includes a chart entitled "n_d - v_d diagram", which is found at the second chart after page 21 of the Glass Catalog. Based on the properties of the glasses shown in this chart, as matched against the glass properties disclosed in the first embodiment of Takanashi, it is believed that the lenses are selected from the Ohara materials as follows:

lens 51: S-FTM 16 lens 52: S-FPL 51

lens 53: S-LAL 13



The Glass Catalog further includes all of the optical properties of these glasses, as can be confirmed by the Examiner.

Accordingly, it is believed that all of Takanashi's lenses in his first embodiment are glass, such that Takanashi does not disclose or suggest at least the feature of a scanning optical system which consists of a glass lens having negative power in the main scanning direction, a first plastic lens having positive power in the main scanning direction, and a second plastic lens having negative power in the main scanning direction.

By comparison, optical plastic materials that might be used in a light scanning apparatus are explained in connection with U.S. Patent 6,400,391 (Suhara), which is assigned to Ricoh Company, Ltd. together with all of the references to Hayashi, Kawamura and Takanashi. As explained at column 3, lines 7 to 36 of the Suhara patent, in connection with his Figure 12, plastic materials applicable to plastic lenses are restricted due to characteristics such as coefficient of moisture absorption, photoelastic coefficient, and refractive index distribution. Acrylic resin is ordinarily not suitable because it has a large coefficient of moisture absorption. Likewise, polycarbonate (PC) is ordinarily not suitable because a birefringence is apt to arise due to significantly large photoelastic coefficients. Polyolefin resin has been most widely used for scanning lenses due to its relatively smaller coefficient of moisture absorption and relatively better birefringence

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characteristics. These optical materials, however, do not coincide with the above-noted chart of Ohara's " n_d - v_d diagram".

Applicant therefore believes it is reasonable to presume that all lenses in Takanashi's first embodiment are made of glass material, and none of them is made of plastic.

The present invention benefits from a scanning optical system in which the first lens is a glass lens, and in which the second and third lenses are plastic. Specifically, according to the claims, at least one surface of each of the first and second plastic lenses in the main scanning direction is aspherical. In comparison with a glass material, a plastic material is advantageous in terms of productivity, cost and realization of the desired shape which in this case is "aspherical" within the main scanning direction. Thus, there is benefit in including plastic lenses together with a glass lens. On the other hand, if all of the plurality of lenses were made of plastic, it might become impossible to correct the chromatic aberration of magnification. Accordingly, there is also benefit in inclusion of a glass lens.

It is therefore respectfully submitted that the rejected claims would not have been obvious from any permissible combination of the applied art, and withdrawal of the rejection is respectfully requested.

New Claims 19 to 24 are directed to a scanning optical device and an image forming apparatus using it, which are not necessarily limited to a wavelength equal to or smaller than 500 nm. However, in view of the above discussion of the art applied against the rejected claims, it is not believed that any permissible combination of the applied art

would disclose or suggest an optical scanning device wherein a scanning optical system

consists of a glass lens having a negative power in the main scanning direction, a first

plastic lens having positive power in the main scanning direction, and a second plastic lens

having negative power in the main scanning direction, wherein at least one surface of each

of the first and second plastic lenses in the main scanning direction is aspherical.

Allowance of Claims 19 to 24 is therefore respectfully requested.

An Information Disclosure Statement accompanies this Amendment, so as

to make the aforementioned Ohara Glass Catalog and the Suhara patent formally of record.

Applicant's undersigned attorney may be reached in our Costa Mesa,

California office at (714) 540-8700. All correspondence should continue to be directed to

our below-listed address.

Respectfully submitted

Registration No.: 32,622

FITZPATRICK, CELLA, HARPER & SCINTO

30 Rockefeller Plaza

New York, New York 10112-3800

Facsimile: (212) 218-2200

CA_MAIN 104803v1

- 14 -



Deposit Account Statement

Requested Statement Month:

November 2005

Deposit Account Number:

061205

Name:

FITZPATRICK CELLA HARPER & SCINTO

Attention:

Address:

30 ROCKEFELLER PLAZA

City:

NEW YORK

State:

NY

Zip:

10112-3801

Country:

UNITED STATES OF AMERICA

| DATE SEQ POSTING REF TXT | ATTORNEY FEE DOCKET COD NBR | E ^{AMT} | BAL |
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| 11/01 2 10108470 | 03500.016323 1202 | \$50.00 | \$47,748.00 |
| 11/01 2 11003447 | 03500.103245 1201 | \$600.00 | \$47,148.00 |
| 11/01 7 11165358 | 03500.119829. 1251 | \$120.00 | \$47,028.00 |
| 11/01 8 09981821 | 862.C 2410 1455 | \$200.00 | \$46,828.00 |
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| 11/02 1 09968013 | 684.3264 1251 | \$120.00 | \$46,058.00 |
| 11/02 24 10132511 | 01807.002037 1251 | \$120.00 | \$45,938.00 |
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| 11/03 140 1933624 | 3001.100 8521 | \$40.00 | \$45,508.00 |
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| 11/03 291 2863263 | 01044.0T4005.CA 8504 | \$30.00 | \$44,988.00 |
| 11/03 304 10527840 | 03500.017629 1617 | \$130.00 | \$44,858.00 |
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| 11/07 47 09907991 | J-3037B 1251 | • | \$43,153.00 |
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| 11/07 263 76476464 | 01790.000030 7004 | \$150.00 | \$42,853.00 |
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| | 11/07 | 1456 | 78748197 | 01938.008507 | 7001 | \$650.00 | \$40,203.00 | |
| | 11/07 | 1469 | 78748203 | 01938.008508 | 7001 | \$650.00 | \$39,553.00 | |
| | 11/07 | 1481 | 78748208 | 01938.008509 | 7001 | \$650.00 | \$38,903.00 | |
| | 11/07 | 1609 | 76430663 | 01790.000690 | 7004 | \$150.00 | \$38,753.00 | |
| | 11/08 | 3 1 | PCT/US05/34258 | 8 3226.0105.77 | 1703 | \$13.00 | \$38,740.00 | |
| | 11/08 | 11 🕏 | 76977839 | NOT IN SYSTEM | 6001 | \$375.00 | \$38,365.00 | -94610Umr |
| | 11/08 | 4 | 76977840 | NOT IN STSTEM | 6001 | \$375.00 | \$37,990.00 | 946,104075 |
| | 11/08 | 12 | 10289366 | 00862.022484 | 1464 | \$130.00 | \$37,860.00 | . 4.10267 |
| | 11/08 | 13 | 10289366 | 00862.022484 | 1801 | \$790.00 | \$37,070.00 | |
| | 11/08 | 34 | 1366914 | 00946.008029 | 6214 | \$100.00 | \$36,970.00 | |
| | 11/08 | 107 | 1011100 | 10945.008606 | 6205 | \$100.00 | \$36,870.00 | |
| | 11/08 | 108 | 1011100 | 11 | 6201 | \$400.00 | \$36,470.00 | |
| | 11/08 | 147 | 10255692 | 00684.003411 | 1806 | -\$180.00 | \$36,650.00 | |
| | 11/08 | 748 | 78748794 | 947.8454.1 | 7001 | \$325.00 | \$36,325.00 | |
| | 11/08 | 1464 | 76287603 | 946.10116 | 7004 | \$450.00 | \$35,875.00 | • |
| | 11/09 | 2 | 10012377 | 00862.022466 | 1201 | \$200.00 | \$35,675.00 | |
| | 11/09 | 7 | 769774830 | NOT INSYSTEM | 6001 | \$375.00 | \$35,300.00 | 9111 |
| | 11/09 | 94 | 78749444 | 03132.000900. | 7001 | \$325.00 | \$34,975.00 | 79201. 44P |
| | 11/09 | 278 | 78749541 | 00946.008420.1 | 7001 | \$325.00 | \$34,650.00 | ` |
| | 11/10 | 13 | 09247086 | 35.C13321 | 1811 | \$100.00 | \$34,550.00 | |
| | 11/10 | 34 | 09451442 | 35.C14160 | 1251 | \$120.00 | \$34,430.00 | |
| | 11/10 | 103 | 76478375 | 946.10412 | 7003 | \$100.00 | \$34,330.00 | |
| | 11/10 | 790 | 78750753 | 946.8763A | 7001 | \$325.00 | \$34,005.00 | |
| | 11/14 | 1 | 10194281 | 03500.016547 | 1201 | \$200.00 | \$33,805.00 | |
| | 11/14 | 252 | 78751440 | 03303.000900 | 7001 | \$650.00 | \$33,155.00 | • |
| | 11/14 | 297 | 78751468 | 01938.008510 | 7001 | \$325.00 | \$32,830.00 | • |
| | 11/14 | 309 | 78751473 | 01938.008511 | 7001 | \$325.00 | \$32,505.00 | |
| | 11/14 | 3156 | 76359638 | 946.F10197 | 7004 | \$600.00 | \$31,905.00 | |
| | 11/15 | 89 | 11214350 | 02618.401500 | 8021 | \$40.00 | \$31,865.00 | |
| | 11/15 | 151 | PCT/US05/40008 | 0648A.M14900 | 1602 | \$700.00 | \$31,165.00 | |
| | 11/15 | 403 | 78753429 | 03380.010912 | 7001 | \$325.00 | \$30,840.00 | |
| | 11/15 | 606 | 76430664 | 01790.000680 | 7004 | \$150.00 | \$30,690.00 | |
| | 11/16 | 1 | 10207222 | 02910.000027 | 1806 | \$180.00 | \$30,510.00 | |
| | 11/16 | 14 | 10405885 | 911141 | 1252 | \$450.00 | \$30,060.00 | |
| | 11/16 | 228 | 11272722 | 00911.003200.1 | 1111 | \$500.00 | \$29,560.00 | |
| ٠ | 11/16 | 229 | 11272722 | 00911.003200.1 | 1311 | \$200.00 | \$29,360.00 | |
| | 11/16 | 230 | 11272722 | 00911.003200.1 | 1202 | \$1,850.00 | \$27,510.00 | |
| ٠ | 11/16 | 389 | 78754419 | 00518.001003 | 7001 | \$325.00 | \$27,185.00 | |
| ٠ | 11/16 | 495 | 76492811 | 01356.008205 | 7004 | \$450.00 | \$26,735.00 | |
| ٠ | 11/17 | 6 | 10536912 | 03500.017.804. | 9204 | -\$100.00 | \$26,835.00 | |
| • | 11/17 | 9 | PCT/US05/26067 | 032 92.101090.85 | 9204 | -\$713.00 | \$27,548.00 | |
| • | 11/17 | 22 | 78359885 | 03285.000257 | 6402 | \$600.00 | \$26,948.00 | |
| | 1/17 | | 78755262 | 03422.010913 | 7001 | \$325.00 | \$26,623.00 | |
| ٠ | 1/17 | 223 | 60628601 | 03650.002760PV | 8007 | \$20.00 | \$26,603.00 | |
| | | | | | | | | |

| 11/1 | 7 297 | 78755317 | 03422.010914 | 7001 | \$325.00 | \$26,278.00 |
|-------|------------|------------|-----------------|--------|------------------------|--------------|
| 11/1 | 7 189 | 3 76495176 | 3134.010364 | 7003 | \$100.00 | \$26,178.00 |
| 11/18 | 8 7 | 76556653 | 946.9965A | 7004 | \$150.00 | \$26,028.00 |
| 11/18 | 3 72 | 78756166 | 01938.008512 | 7001 | \$325.00 | \$25,703.00 |
| 11/18 | 3 114 | 76478523 | 3134.10457 | 7003 | \$100.00 | \$25,603.00 |
| 11/18 | 3 224 | 78756237 | 01938.008513 | 7001 | \$325.00 | \$25,278.00 |
| 11/18 | 3 282 | 76378071 | 00946.F10258 | 7004 | \$900.00 | \$24,378.00 |
| 11/18 | 3 1404 | 78756855 | 03004.001300 | 7001 | \$325.00 | \$24,053.00 |
| 11/21 | l 1 | 10206622 | 83366.0015 | 1806 | \$180.00 | \$23,873.00 |
| 11/21 | 1 | 10810581 | 03500.018003. | 1201 | \$200.00 | \$23,673.00 |
| 11/21 | l 1 | 11084623 | 00684.002569.3 | 1202 | \$100.00 | \$23,573.00 |
| 11/21 | 1 | 09251600 | 00766.000074.14 | 8007 | \$20.00 | \$23,553.00 |
| 11/21 | 38 | 11171235 | 00684.102393 | 1252 | \$30.00 | \$23,523.00 |
| 11/21 | 146 | 78757208 | 03004.01300 | 7001 | \$325.00 | \$23,198.00 |
| 11/21 | 183 | 2246408 | 01293.000062 | 7205 | \$100.00 | \$23,098.00 |
| 11/21 | 184 | 2246408 | 01293.000062 | 7208 | \$200.00 | \$22,898.00 |
| 11/21 | 213 | 78757232 | 03004.13100 | 7001 | \$325.00 | \$22,573.00 |
| 11/21 | 232 | 78757246 | 03004.13100 | 7001 | \$325.00 | \$22,248.00 |
| 11/21 | 251 | 78757257 | 03004.13200 | 7001 | \$325.00 | \$21,923.00 |
| 11/21 | 1631 | 1937106 | 01400.008075 | 7205 | \$100.00 | \$21,823.00 |
| 11/21 | 1632 | 1937106 | 01400.008075 | 7201 | \$400.00 | \$21,423.00 |
| | | 76561760 | 946.10571 | 7003 | \$300.00 | \$21,123.00 |
| 11/22 | | 11249407 | 03650.003045 | 9204 | ÷\$50.00 | \$21,173.00 |
| 11/22 | | 11281595 | 00169.127720. | 9204 | -\$110.00 | \$21,283.00 |
| 11/22 | | 78758334 | 01938.008505 | 7001 | \$325.00 | \$20,958.00 |
| 11/22 | | 78758395 | 01422.008042 | 7001 | \$975.00 | \$19,983.00 |
| 11/22 | | 2367740 | 01938.008253 | 7205 | \$100.00 | \$19,883.00 |
| 11/22 | | 2367740 | 01938.008253 | 7208 | \$200.00 | \$19,683.00 |
| | | 1985637 | 01938.008099 | 7205 | \$100.00 | \$19,583.00 |
| | | 1985637 | 01938.008099 | 7201 | \$400.00 | \$19,183.00 |
| | | 2365836 | 01938.008267 | 7205 | \$100.00 | \$19,083.00 |
| | | 2365836 | 01938.008267 | 7208 | \$200.00 | \$18,883.00 |
| | | 76604202 | 01938.008472 | 7003 | \$100.00 | \$18,783.00 |
| | | 1941313 | 02650.0000T8. | 7205 | \$100.00 | \$18,683.00 |
| | | 1941313 | 02650.0000T8. | 7201 | \$400.00 | \$18,283.00 |
| 11/23 | | 11065343 | 00911.003200 | 1111 . | \$500.00 | \$17,783.00 |
| 11/23 | | 11065343 | 00911.003200 | 1311 | \$200.00 | \$17,583.00 |
| 11/23 | | 11065343 | 00911.003200 | 1202 | \$1,850.00 | \$15,733.00 |
| 11/23 | | 10096750 | 03560.002999 | 1201 | \$200.00 | \$15,533.00 |
| 11/23 | | 11282770 | 00862.119437. | 1201 | \$290.00 | \$15,243.00 |
| 11/23 | | 11282770 | 00862.119437. | 1202 | \$150.00 | \$15,093.00 |
| 11/23 | | 78759527 | 02863.005102. | 7001 | \$650.00 | \$14,443.00 |
| | | 78414733 | 03285 000 052 4 | | \$100.00 | \$14,343.00 |
| 11/25 | | 11282770 | 00862.119437. | 1201 | -\$290.00 | \$14,633.00 |
| 11/25 | | 11282770 | 00862.119437. | 1202 | -\$150.00 | \$14,783.00 |
| 11/25 | | 11282770 | 00862.119437. | 1202 | \$250.00 | \$14,783.00 |
| 11/25 | | 11282770 | 00862.119437. | 1201 | \$150.00 | \$14,383.00 |
| 11/25 | | 11281397 | | 8021 | \$40.00 | \$14,363.00 |
| 11/28 | | 10535272 | | 9204 | -\$100.00 | \$14,443.00 |
| 11/28 | | 10535272 | 03700.01011 | | -\$100.00 -\$100.00 | \$14,543.00 |
| • | | . 302000 | 00684.003634 | 0207 | Ψ100.00 | ψ i i,040.00 |
| | | | | | | |

| 11/28 46 10660638 | 0291.000079 | 1463 | \$70.00 | \$14,473.00 |
|---------------------|----------------|-------|-------------|-------------|
| 11/28 265 11206280 | 07608.007700 | 9204 | -\$200.00 | \$14,673.00 |
| 11/28 524 78302031 | 01915.007127.4 | 57004 | \$150.00 | \$14,523.00 |
| 11/29 3 10516545 | 03500.017320 | 9204 | -\$2,178.00 | \$16,701.00 |
| 11/29 11 76572383 | 00947.005332 | 7402 | \$600.00 | \$16,101.00 |
| 11/29 20 09852660 | 01807.001616 | 8021 | \$40.00 | \$16,061.00 |
| 11/29 21 10532429 | 03500.000346 | 9204 | -\$300.00 | \$16,361.00 |
| 11/29 23 09731834 | 2280.2680 | 1252 | \$30.00 | \$16,331.00 |
| 11/29 1318 76267028 | 945.8689A | 7004 | \$150.00 | \$16,181.00 |
| 11/29 1336 76441872 | 945.10351 | 7004 | \$150.00 | \$16,031.00 |
| 11/29 1352 76441597 | 945.10354 | 7004 | \$150.00 | \$15,881.00 |
| 11/29 1473 76578641 | 946.10625 | 7003 | \$100.00 | \$15,781.00 |
| 11/30 3 1990757 | 00952.008132 | 9204 | -\$300.00 | \$16,081.00 |
| 11/30 53 11/289439 | NOT IN SYSTEM | 9204 | -\$100.00 | \$16,181.00 |

 START
 SUM OF
 SUM OF
 END

 BALANCE
 CHARGES
 REPLENISH BALANCE

 \$47,798.00
 \$36,948.00
 \$5,331.00
 \$16,181.00